**Test 1**

* The DBMS act as an interface between what two components of an enterprise-class database system?
  + Database application and the database
* An application where only one user accesses the database at a given time is an example of a(n)
  + Single-user database application
* SQL stands for
  + Structured Query Language
* You have run an SQL statement that ask the DBMS to display data in a table named USER\_TABLES. The results include columns of data labeled “TableName,” “NumberOfColumns” and “PrimaryKey.” You are looking at
  + Metadata
* Which of the following is not considered to be a basic element of an enterprise-class database system?
  + COBOL programs
* You can add a row using SQL in a database with which of the following?
  + INSERT
* The command to remove rows from a table ‘CUSTOMER’ is
  + DELETE FROM CUSTOMER WHERE …
* The SQL WHERE clause:
  + Limits the row data are returned.
* Which of the following is the original purpose of SQL
  + All of the above
* The wildcard in a WHERE clause is useful when?
  + An exact match is not possible in a SELECT statement
* A view is which of the following?
  + A virtual table that can be accessed via SQL commands
* SQL data definition commands make up a(n)
  + DDL
* Which of the following is the correct order of keywords for SQL SELECT statements?
  + SELECT, FROM, WHERE
* A subquery in an SQL SELECT statement is enclosed in:
  + Parenthesis – (…) .
* The result of a SQL SELECT statement is a(n)
  + Table
* Which of the following are the five built-in functions provided by SQL?
  + COUNT, SUM, AVG, MAX, MIN
* The HAVING clause does which of the following?
  + Acts like a WHERE clause but is used for groups rather than rows.
* THE SQL-92 wildcards are
  + Percent sign (%); underscore (\_)
* To remove duplicate rows from the results of an SQL SELECET statement, the \_\_\_\_ qualifier specified must be included.
  + DISTINCT
* SQL query and modification commands make up a(n)
  + DML
* Find the SQL statement below that is equal to the following:

SELECT NAME FROM CUSTOMER WHERE STATE IN = ‘VA’;

* + SELECT NAME FROM CUSTOMER WHERE STATE IN (‘VA’);
* Which one of the following sorts rows in SQL?
  + ORDER BY
* To define what columns should be displayed in an SQL SELECT statement;
  + Use FROM to name the source table(s) and list the columns to be shown after SELECT.
* The SQL statement that queries or reads data from a table is
  + SELECT
* The SQL keyword BETWEEN is used:
  + For ranges.
* \_\_\_\_\_ was adopted as a national standard by ANSI in 1992.
* SQL
* What type of join is needed when you wish to include rows that do not have matching values?
* Outer join
* The following SQL is which type of join:

SELECT CUSTOMER\_T. CUSTOMER\_IS\_T.CUSTOMER\_IS, NAME, ORDER\_ID FROM CUSTOMER\_T, ORDER\_T WHERE CUSTOMER\_T. CUSTOMER\_ID = ORDER\_T. CUSTOMER\_ID

* Equi-join
* Which of the following statements is true concerning subqueries?
* Involves the use of an inner and outer query.
* Which SQL statement is used to update data in a database?
* UPDATE
* Which SQL statement is used to insert new data in a database?
* INSERT INTO
* With SQL, how do you select a column named "FirstName" from a table named "Persons"?
* SELECT FirstName FROM Persons
* With SQL, how do you select all the columns from a table named "Persons"?
* SELECT \* FROM Persons
* With SQL, how do you select all the records from a table named "Persons" where the value of the column "FirstName" is "Peter"?
* SELECT \* FROM Persons WHERE FirstName='Peter'
* With SQL, how do you select all the records from a table named "Persons" where the "FirstName" is "Peter" and the "LastName" is "Jackson"?
* SELECT \* FROM Persons  
  WHERE FirstName='Peter' AND LastName='Jackson'
* With SQL, how can you return all the records from a table named "Persons" sorted descending by "FirstName"?
* SELECT \* FROM Persons ORDER BY FirstName DESC
* With SQL, how can you insert a new record into the "Persons" table?
* INSERT INTO Persons VALUES ('Jimmy', 'Jackson')
* With SQL, how can you delete the records where the "FirstName" is "Peter" in the Persons Table?
* DELETE FROM Persons WHERE FirstName = 'Peter'
* With SQL, how can you return the number of records in the "Person" table?
* SELECT COUNT(\*) FROM Persons
* In a database, student registration information is stored as a C++ struct. This information is at
* Internal level
* Consider the following relations:

Student(ssn, name, address, major)

Course (code, title)

Registered(ssn, code)

List the titles of all courses.

* ∏title(Course)

List the information of the students majoring in 'CS'

* ∏snn, name, address (∞major = 'CS' (Student))

List the codes of courses for which at least one student is registered (registered courses)

* ∏code(Registered)

List the titles of registered courses

* Π title ( Course \* Registered )

List the codes of courses for which no student is registered

* Π code ( Course ) - Π code ( Registered )

List the titles of registered courses

* Π title ( Course ∞ Registered )

List the titles of courses for which no student is registered.

* Π title ( (πcode ( Course ) - πcode ( Registered )) ∞ Course)

Names of students and the titles of courses they registered to

* Π name,title ( Student ∞ Registered ∞ Course)

**Database Midterm 2**

* The CREATE TABLE statement is used to
* Create a new database table
* Which of the following about ALTER TABEL is true?
* The SQL ALTER TABLE clause modifies a table definition by altering, adding, or deleting table columns and/or constraints.
* What is a database cursor?
* Cursor is a database object pointing to a selected set of records.
* A view is which of the following?
* A virtual table that can be accessed via SQL commands
* The command to eliminate table CUSTOMER from a database is:
* DROP TABLE CUSTOMER;
* ON UPDATE CASCADE ensures which of the following?
* Data Integrity
* Which of the following do you need to consider when you make a table in SQL?
* All of the above
* Which SQL command is used to remove a column from a table?
* ALTER TABLE
* What does the following statement do?

CREAT VIEW X

AS SELECT s.staffNo, s.branchNo, s.fName, s.lName, p.propertyNo

FROM Staff s, PropertyForRent p

WHERE s.staffNo = p.staffNo

* It create a virtual table within 5 columns
* What does the following statement do?

vX Branch.branchNo%TYPE;

* It define a variable vX to be the same type as the column branchNo of table Branch
* Which of the following statement stores value 100 into variable X?
* X :=100;
* What is the value of wage if hours is 50 after the following statement is executed?

IF ( hour <=40 ) THEN

Wage := hours \* 10;

ELSE

Wage := 400 + (hours-40)\*15;

END IF;

* 550
* What are the values of x and y after the following statement is executed if both of their initial values are 0?

aLoop;

LOOP

Y := y+2;

IF ( x >=5) THEN EXIT aLoop;

X := x+1;

END LOOP aLoop;

* x = 5, y = 12
* Where is a cursor declared?
* In the DECLARE section
* Which of the following uses a cursor correctly?
* FETCH aCursor INTO x, y, y;
* There are triggers for
* Update, delete and insert
* What may be the missing line(s) for the following statement?

CREATE TRIGGER aTrigger

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

REFERENCE NEW AS new

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

BEGIN

INSERT INTO aTable VALUE (:new.fName, ;new.IName);

END;

* AFTER INSERT ON aTable, and

FOR EACH ROW

* A fitness center has a number of exercise rooms. Each exercise room has a unique name, room numbers, floor number, and capacity. Insider each exercise room, there are some special-purpose equipments which are uniquely identified by an equipment number. A patron can reserve at most one special-purpose equipment for exclusive use during a one-hour slot every week. Each patron has a unique patron ID, a name, an address and a phone number. Create an ER model for the system.

